Amendments to the Specification:

Please replace the Abstract with the following paragraph:

A system and method that enhance the performance of cochlear implant signal processing in an amplification device. The system utilizes a signal input device that picks up the sounds from the environment or ~~from~~ other hearing or audio devices and feeds the incoming signal into a front-end signal processor~~, which can be signal processors from hearing aids, hearing protectors or other audio devices~~. The front-end processor pre-processes the signals and feeds them into a cochlear implant signal processor. ~~The front-end processor may have multiple signal feeding and signal extraction points, other than the two ends, to which connections can be made to feed signals into and extract signals from the front-end processor.~~ The system may also insert a front-end processor into multiple signal processing stages of a cochlear implant signal processor with the front-end processor "sandwiched" between the multiple signal processing stages of the cochlear implant signal processors. The system may also insert a front-end processor into multiple signal processing stages of a cochlear implant signal processor with the front-end processor being either an integrated part of the cochlear implant signal processor or a functionally distinctive part for bilateral cochlear implants.

Please replace Paragraph [0007] with the following paragraph:

Difficulties in understanding speech in noise have been the most frequent complaints from both hearing aid and cochlear implant users. Research has shown that hearing aid and cochlear implant users have more difficulties in understanding speech in noisy environments than people with normal hearing, depend<u>ing</u> on the spectral and temporal characteristics of the background noise (Dirks, Morgan & Dubno, 1982; Dorman et al, 1998; Duquesnoy, 1983; Eisenberg, Dirks & Bell, 1995; Festen & Plomp, 1990; Gengel, 1971; Kessler et al., 1997; Plomp, 1994; Skinner et al., 1994; Soede, 2000, Peters, Moore & Baer, 1998, Tillman, Carhart & Olsen, 1970; Zeng & Galvin, 1999). Noise creates difficulties in speech understanding, which

may elicit other negative reactions for hearing aid users, such as, annoyance, headaches, fatigue, embarrassment, and social isolation.

Please replace Paragraph [0008] with the following paragraph:

From a signal processing point of view, the differences between speech and noise may be explored by their temporal, spectral, and/or spatial characteristics and relationships. Temporally, noise may co-exist with targeted speech at the same ~~instant~~ instance or they may occur at different ~~instants~~ instances. Spectrally, the frequency spectrum of speech and noise may overlap or occur at different frequency regions. Spatially, noise may originate from a different spatial angle than the targeted speech, or noise may come from the same direction as the targeted speech.

Please replace Paragraph [0009] with the following paragraph:

Multiple technologies have been developed to reduce the detrimental effect of background noise on hearing aids, such as noise reduction/speech enhancement algorithms, directional microphones, microphone matching algorithms, and adaptive directionality algorithms. Speech enhancement algorithms exaggerate the spectral and/or temporal contrast in an attempt to enhance speech intelligibility (Olsen, 2002; Matsui & Lemons, 2001). Noise reduction algorithms are mainly designed to reduce noise interferences. Some noise reduction algorithms take advantage of the spectral separation between speech and noise and some noise reduction algorithms take advantage of the temporal separation between speech and noise. Algorithms that take advantage of the spectral separation between speech and noise detect the frequency bands with speech-like signal dominance or with noise-like signal dominance, and reduce the gain of the frequency bands at which noise occurs (Kuk, Ludvigsen & Paludan-Muller, 2002; Johns, Bray & Nilsson, 2001; Olsen, 2002). Other algorithms attempt to take advantage of the temporal separation between speech and noise. When no speech is detected, the

algorithm gradually reduces the gain or increase compression of the hearing aid. When speech is present, the algorithm instantaneously restores the gain to the normal settings (Bachler, Knecht, Launer & Uvacek, 1997; Elberling, 2002). Some of the noise-reduction algorithms are proven to either enhance speech understanding or increase listening comfort for hearing aid users (Bray & Nilson, 2001; Bray & Valente, 2001, Chung, 2002, Chung, 2003).

Please replace Paragraph [0017] with the following paragraph:

In an embodiment of the present invention, the processing in the first processor and/or the second processor may comprise at least one of: multiple signal processing stages; multiple signal processing algorithms; and multiple components. The first processor may also contain multiple signal feeding points and multiple signal extraction points to which connections can be made to feed signals into and extract signals from the system.

Please replace Paragraph [0019] with the following paragraph:

A method that enhances the performance of ~~a system of a~~ cochlear implant speech processing in an amplification device, comprises collecting signals in the environment by the at least one microphone; preprocessing the collected signals in the first processor; feeding the preprocessed signal into the second processor; processing the signal in the second processor; and feeding the processed signal into a transmitter.